

## ACRONYMS AND ABBREVIATIONS

A	Acceleration; Area; Target Presented Area
A <sub>0</sub>	Main Lobe Amplitude
A <sub>1</sub>	First Side Lobe Amplitude
A <sub>2</sub>	Second Side Lobe Amplitude
AAA	Antiaircraft Artillery
AGC	Automatic Gain Control
AGCREF	Automatic Gain Control Reference Voltage
AGCSIG	Automatic Gain Control Control Voltage
AGL	Above Ground Level
ALARM	Advanced Low-Altitude Radar Model
AM	Amplitude Modulation
Amp	Amplitude
AMRL	Aerospace Medical Research Laboratory; Armament and Munitions Research Laboratory
A <sub>n</sub>	Amplitude
ANGLE	Off-Boresight Angle
ANOVA	Analysis of Variance
ASP	Accreditation Support Package
avg	Average
Az	Azimuth
B	Ballistic Equation
AP	Aim Point Azimuth
BETA	Azimuth Angle Aiming Solution
BW	Receiver Bandwidth (Hz)
BTR	Burn-Through Range
C	Constant Value
c	Velocity of Light
CONSCAN	Conical Scan
COSRO	Conical Scan on Receive Only
CPA	Closest Point of Approach
	Magnitude Change
D	Distance; Diameter; Miss Distance
d	Round Diameter; Target Dimension
dB	Decibel
dBsm	Decibels per Square Meter
dBW	Decibels per Watt
deg	Degree
DoD	Department of Defense
DRD	Data Requirements Dictionary
E(s)	Gun Boresight Angle
ECCM	Electronic Counter Countermeasure
ECM	Electronic Countermeasure
El	Elevation

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EM	Electromagnetic
EO	Electro-Optic
ESAMS	Enhanced Surface-to-Air Missile Simulation
F	Value for F-Distribution
f	Carrier Frequency; Constant Value; Fire Rate of One Gun (rounds/second)
F1	Operator Muzzle Velocity Control Parameter
FAT	Functional Area Template
F <sub>C</sub>	Critical Value for F-Distribution
FCC	Fire-Control Computer
FE	Functional Element
f <sub>e</sub>	Egress Frequency
FEAP	Functional Element Assessment Plan
f <sub>i</sub>	Ingress Frequency
p	Aim Point Elevation
F <sub>m</sub>	Value of F-Distribution for Means
FME	Foreign Material Exploitation
F <sub>N</sub>	Noise Figure
F <sub>V</sub>	Value of F-Distribution for Variances
FSTC	Foreign Science and Technology Center
G	Antenna Gain Factor
G <sub>r</sub>	Antenna Gain
G(s)	Transfer Function Value
g	Acceleration of Gravity
GAIN0	Receiver Amplifier Gain
H	Horizontal Miss Distance
Hz	Hertz
IR	Infrared
J	Joule
JEM	Jet Engine Modulation
J/S	Jammer-to-Signal Ratio
JTCG/AS	Joint Technical Coordinating Group for Aircraft Survivability
K	Constant Value; Kilo (x1000); Degrees Kelvin
K <sub>0</sub>	Boltzmann Constant (1.3805E-23 J/k)
k	Kilo- (x 1000); Constant Value
K <sub>d</sub> (s)	Drag Coefficient
	Wavelength
LCS	Local Coordinate System
L <sub>t</sub>	Total Loss Factor
m	Meter; Round Mass
M/S	Modeling and Simulation

m/s	Meters per Second
MAP	Model Assessment Plan
MARS	Model Assessment Requirements Specification
MOE	Measure of Effectiveness
MOP	Measure of Performance
$\mu$	Microsecond
$M_{pt}$	Peak Value
mr	Milliradian
mrad	Milliradian
MTI	Moving Target Indicator
mW	Milliwatt
N	Number; Noise
N	Number of Rounds in Burst
n	Number
NRL	Naval Research Laboratory
$N_s$	Number of Rounds Fired per Scan
ns	Nanosecond
nW	Nanowatt
OCR	Optical Character Recognition
OPCH	Optical Cross-Hair Tracking
OPSR	Optical Tracking with Speed Rings
P(s)	Fire-Control Aim Angle
p(t)	Superelevation Command
$P_{cum}$	Cumulative Hit Probability
$P_d$	Probability of Detection
PDF	Probability Density Function
PD <sup>3</sup>	Post Development Design Document
$P_{fa}$	Probability of False Alarm
$P_H$	Probability of Hit
PHI	Elevation Angle Aiming Solution
$P_k$	Probability of Kill
$P_{miss}$	Probability that All Rounds Missed
$P_N$	Thermal Noise
POC	Point of Contact
PPI	Plan Position Indicator
$P_r$	Radar Peak Power Output
PRF	Pulse Repetition Frequency
PRI	Pulse Repetition Interval
pW	Picowatt
Pwr	Power
R	Range; Radius of Circle Approximation of Presented Area of Ellipsoid
	Air Density
R	Radius
RADGUNS	Radar-Directed Gun System Simulation
RCS	Radar Cross Section

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RF	Radio Frequency
RG	Range
R <sub>g</sub>	Measured Range
RG <sub>det</sub>	Detection Range
RGWO	Range Gate Walk-Off
R <sub>i</sub>	Indirect Path Length
R <sub>max</sub>	Maximum Allowable Rest Duration; Maximum Detection Range
R <sub>min</sub>	Minimum Allowable Rest Duration
RMS	Root-Mean-Square
R <sub>p</sub>	Radius of Projectile
RPTR	Simple Repeater
R <sub>T</sub>	Radius of Uncertainty
R <sub>t</sub>	True Range
R <sub>u</sub>	Unambiguous Target Range
s	Second; Round Velocity; Dispersion; Laplace Operator; Velocity
σ	Standard Deviation; RCS; Dispersion
σ <sup>2</sup>	Variance
S/N	Signal-to-Noise Ratio
SAP	Sensitivity Analysis Plan
SAR	Sensitivity Analysis Report
S <sub>est</sub>	Estimated Round Velocity
SIG	Adjusted Voltage
SMART	Susceptibility Model Assessment and Range Test
S <sub>max</sub>	Maximum Number of Rounds per Burst per Gun
S <sub>min</sub>	Minimum Number of Rounds per Burst per Gun
(S/N) <sub>min</sub>	Minimum Signal-to-Noise Ratio
SNR <sub>AT</sub>	Signal-to-Noise Ratio
SOW	Statement of Work
SP	Self-propelled
SPJ	Self-Protection Jamming
S&TI	Scientific and Technical Information
SV/T	Single Value per Test
SWA	Swept Audio
S	Summation
θ	Angle Magnitude
τ	Time Delay
t	Time; Value for Student's t-Distribution
T°	IEEE Standard Temperature (290°K)
TBD	To Be Determined
TEMP	Temperature
Tgt	Target
TOF	Time-of-Flight
T <sub>p</sub>	Peak Time
t <sub>p</sub>	Time to Reach Target
TPA	Target Presented Area
T <sub>r</sub>	Rise Time
T <sub>s</sub>	Settling Time

TSPI	Time, Space, and Position Information
TVA	Target Vulnerable Area
TWS	Track-While-Scan
$V$	Input Range Error Signal; Vertical Miss Distance; Velocity
V	Volts
V&V	Verification and Validation
VFT	Velocity False Target
VGWO	Velocity Gate Walk-Off
$V_{IN}$	Input Voltage
$V_{OUT}$	Output Voltage
$V_r$	Relative Velocity
W	Watt
	Angular Frequency
$\bar{X}$	Arithmetic Mean
z	Value for Normal Distribution
$z_c$	Critical Value for Mann-Whitney U test
$z_U$	Value for Mann-Whitney U test

